

ABSTRACT

The invention disclosed herein ~~related-relates~~ to an improved process for making novel elastomeric polyisoprene articles and a water-based process for making such articles. In particular, the ~~process of the invention is a system which produces articles are~~ synthetic polyisoprene articles cured by an accelerator composition including a dithiocarbamate, a thiazole and a guanidine compound. The resultant article exhibits exhibiting tensile strength properties similar to ~~that of articles produced by~~ solvent-based processes using natural rubber latex. The process ~~comprises an~~ provides for significantly reduced pre-cure process parameters (i.e., lower temperature and shorter time periods than conventionally used), ~~accelerator composition at the pre-cure stage comprising a dithiocarbamate, a thiazole and a guanidine compound~~. In a preferred embodiment, the accelerator composition ~~comprised~~ includes zinc diethyldithiocarbamate (ZDEC), zinc 2-mercaptobenzothiazole (ZMBT) and diphenyl guanidine (DPG), in conjunction with a stabilizer, such as sodium caseinate. The invention ~~also includes an~~ encompasses elastomeric polyisoprene products ~~product~~ made by the process, such as a surgeon's glove.